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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,704	10/08/2007	Fraser Shaw	FRYHP0142US	5046
23908 7590 04/27/2012 RENNER OTTO BOISSELLE & SKLAR, LLP 1621 EUCLID AVENUE NINETEENTH FLOOR CLEVELAND, OH 44115			EXAMINER YAN, REN LUO	
			ART UNIT 2854	PAPER NUMBER
			MAIL DATE 04/27/2012	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/595,704	SHAW ET AL.	
	Examiner	Art Unit	
	REN YAN	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-34 and 39-54 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☒ Claim(s) 1-34, 42, 43, 48-50, 52 and 53 is/are allowed.
- 7) ☒ Claim(s) 39-41, 44-47, 51 and 54 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8-24-2011 has been entered.

Claim Objections

Claims 45-47 and 50-54 are objected to for the following deficiencies:

Claims 45-47 each recite “the or each engagement element” which has no proper antecedent basis because their independent claim 39 only defines “at least one engagement element”.

Claim 50 recites “the or each engagement element” which has no proper antecedent basis because its independent claim 24 only defines “at least one engagement element”.

Claims 51-54 each recite “the operating arm of the or each engagement element” which has no proper antecedent basis. For the purpose of this Office action, “the operating arm” is presumed to be the biasing arm as defined in the preceding claims. Additionally, for claims 51 and 54, the recitation of “the or each engagement element” has no proper antecedent basis because their independent claim 39 only defines “at least one engagement element”.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 39, 40, 44-47, 51 and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Podlipec et al (6,038,969).

Regarding claim 39, Podlipec et al teach the structure of a frame unit for tensioning a printing screen as claimed, the frame unit comprising a frame 1 including a mounting surface at which a respective edge of a fitted printing screen is engaged and at least one frame member 2, the at least one frame member comprising: a supporting frame element; at least one engagement element 5, 11 and 12 for engaging a fitted printing screen 9 to tension the same, wherein the at least one engagement element comprises a body 5 which is pivotally coupled to the supporting frame element such that the at least one engagement element is pivotable in one, tensioning sense to tension a fitted printing screen (the dotted position of engagement element body 5 in Fig. 2) and the other, opposite sense to adopt a configuration in which a printing screen can be fitted to or removed from the frame unit (the normal and unbiased position of engagement element body 5 in Fig. 2), a first, engagement arm 11 (the upper part of engagement element body 5) extending from the body for engaging a fitted printing screen, and a second, biasing arm (the part of the engagement element body 5 that is biased by the tensioning tube 4) extending from the body to which a biasing force is applied to bias the at least one engagement element to pivot in the tensioning sense; and at least one biasing element 4 (the tensioning tube) operative to apply a

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biasing force to the biasing arm of the at least one engagement element to bias the at least one engagement element to pivot in the tensioning sense and tension a fitted printing screen, wherein the at least one biasing element 4 is configured to apply a biasing force to the biasing arm of the at least one engagement element in a direction substantially orthogonal to the mounting surface. The Examiner notes that the claimed invention is directed to a frame unit *per se* and the recited printing screen does not form any part of the frame unit as claimed. Therefore, the recitation of how the edge of the printing screen engages a surface of the frame does not further define the structure of the frame unit as claimed. Podlipec et al teach wherein the frame includes a mounting surface at which a respective edge of a fitted printing screen can be engaged and the recited mounting surface reads on the left vertical outer surface and the bottom horizontal surface of the frame member 2 as shown in Fig. 2 of Podlipec et al. See Figs. 1-7 and column 4, line 19 through column 5, line 40 in Podlipec et al for details.

Regarding claim 40, Podlipec et al teach the structure of a frame unit for tensioning a printing screen as claimed, the frame unit comprising a frame 1 including a mounting surface at which a respective edge of a fitted printing screen is engaged and at least one frame member 2, the at least one frame member comprising: a supporting frame element; at least one engagement element 5, 11 and 12 for engaging a fitted printing screen 9 to tension the same, wherein the at least one engagement element comprises a body 5 which is pivotally coupled to the supporting frame element such that the at least one engagement element is pivotable in one, tensioning sense to tension a fitted printing screen (the dotted position of engagement element body 5 in Fig. 2) and the other, opposite sense to adopt a configuration in which a printing screen can be fitted to or removed from the frame unit (the normal and unbiased position of engagement element body

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5 in Fig. 2), a first, engagement arm 11 (the upper part of engagement element body 5) extending from the body for engaging a fitted printing screen, and a second, biasing arm (the part of the engagement element body 5 that is biased by the tensioning tube 4) extending from the body to which a biasing force is applied to bias the at least one engagement element to pivot in the tensioning sense; with the biasing arm of the at least one engagement element has a principal component extending parallel to the mounting surface, and at least one biasing element 4 (the tensioning tube) operative to apply a biasing force to the biasing arm of the at least one engagement element to bias the at least one engagement element to pivot in the tensioning sense and tension a fitted printing screen. The Examiner notes that the claimed invention is directed to a frame unit *per se* and the recited printing screen does not form any part of the frame unit as claimed. Therefore, the recitation of how the edge of the printing screen engages a surface of the frame does not further define the structure of the frame unit as claimed. Podlipec et al teach wherein the frame includes a mounting surface at which a respective edge of a fitted printing screen can be engaged and the recited mounting surface reads on the left vertical outer surface and the bottom horizontal surface of the frame member 2 as shown in Fig. 2 of Podlipec et al. See Figs. 1-7 and column 4, line 19 through column 5, line 40 in Podlipec et al for details.

Regarding claim 44, Podlipec et al teach wherein the at least one biasing element 4 is configured to apply a biasing force to the biasing arm of the at least one engagement element in a direction substantially orthogonal to the mounting surface.

Regarding claim 45, Podlipec et al teach wherein the engagement arm of the at least one engagement element extends substantially orthogonally to the mounting surface.

Regarding claims 46 and 51, Podlipec et al teach wherein the biasing arm of the at least

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one engagement element has a principal component extending parallel to the mounting surface.

Regarding claims 47 and 54, Podlipec et al teach wherein the biasing arm 11 of the at least one engagement element has a principal component extending parallel to the mounting surface and in a direction towards an outer edge of the supporting frame element.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Podlipec et al in view of Williams (6,289,804).

Regarding 41, Podlipec et al teach all that is claimed except for the biasing element providing a permanent biasing force and being a resilient element.

Williams teaches in a similar frame unit for tensioning a printing screen the conventional use of a biasing element in a form of a coil spring 9 that is resilient and provides a permanent biasing force to tension the printing screen 10 mounted thereon. See Fig. 2 in Williams for example.

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the frame unit of Podlipec et al with the coil spring as the biasing element as taught by Williams so as to predictably tension the printing screen with a constant biasing force.

Allowable Subject Matter

Claims 1-34, 42, 43, 48-50, 52 and 53 are allowed.

With respect to claim 1, no prior art has been found to teach the overall combination structure of a frame unit for tensioning a printing screen as claimed including particularly a plurality of engagement elements disposed along the supporting frame element wherein each engagement element comprises a body pivotally coupled to the supporting frame element with a first engagement arm and a second biasing arm, wherein each of the engagement elements is pivotable independently of the other, and at least one biasing element operative to apply a biasing force to the biasing arm to bias the engagement elements to pivot in the tensioning sense to tension a fitted printing screen.

Regarding claim 24, no prior art has been found to teach the overall combination structure of a frame unit for tensioning a printing screen as claimed including particularly the at least one engagement element further comprises a third, operating arm to which a counter-biasing force is applied by the at least one counter-biasing element to overcome the biasing force of the at least one biasing element and pivot the at least one engagement element in the other sense to adopt a configuration in which a printing screen can be fitted to or removed from the frame unit.

Response to Arguments

Applicant's arguments filed on 8-24-2011 have been fully considered but they are not persuasive.

Applicant argues, regarding claim 41 that in the frame of Podlipec et al the tensioning tubes cannot be replaced by coil springs which provide a permanent biasing force, as then the

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frame of Podlipec et al would include no means for enabling the mounting/demounting of the stencil. This argument is not persuasive because claim 41 is directed to a frame unit for tensioning a printing screen and there is no structure defined in claim 41 that would require any means for enabling mounting/demounting of the printing screen as argued. The structural requirement of claim 41 is fully met by the frame unit of Podlipec et al, as modified by Williams. It should be apparent to those skilled in the art that an external tool can always be used to overcome the biasing force of the coil springs to mount/demount the stencil when needed the same way as illustrated in applicant's own Fig. 10 embodiment.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ren L. Yan whose telephone number is 571-272-2173. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ren L Yan/
Primary Examiner, Art Unit 2854
April 25, 2012